



Social innovation as a way to reduce vulnerability to flash flood

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► To cite this version:

Béatrice Nguyen-Huu Gisclard. Social innovation as a way to reduce vulnerability to flash flood: How social innovation can be an innovative approach to prevent and to reduce flash flood risk in rural areas. the value of design research, 11th International European Academy of Design Conference, Apr 2015, Paris, France. . hal-01174768

HAL Id: hal-01174768

<https://hal.science/hal-01174768>

Submitted on 9 Jul 2015

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Social innovation as a way to reduce vulnerability to flash flood

How social innovation can be an innovative approach to prevent and to reduce flash flood risk in rural areas.

1 INSPIRATION



Flooding as a complex process : numerous interacting agents on various scales.

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The human factor in social innovation as a lever of prevention and risk reduction.

© rune gunerussen / wall n3



Responsible citizens coping with flood : how to be active actors in their own safety ?

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Meaningful details in environment: leading actions during time of warning.

2 FACING VULNERABILITY...

Floods' impacts nowadays cause important damages in more densified territories within interwoven networks. We highlight the relevance of a cross-disciplinary approach focused on interactions between humans and their environment at a local scale.

3 ...COPING WITH COMPLEXITY

Despite our sophisticated weather forecast system, flash floods arise violently. They are still quite unpredictable and damage significantly people, their properties as well as public goods. Moreover, institutional organisations' rigidity are inconsistent with those phenomena.

Depending upon the impacted populations' vulnerability level, flood is considered more an anthropic event than a natural one. We refer to Edgar Morin's work (2005) on Complex Thought where the system's intelligibility is not only in the system itself but also within its interaction with its environment. That specific relation is the system's constitutive

element.

The contribution from complementary disciplines studying the specific relations between humans and their territories, constitutes the originality in our research's approach. **Risks geography** helps us understand vulnerability through spatial analysis. **Environmental psychology** considers interrelationship between environment and human through his cognitions and behaviors in order to understand risk perception and social danger representations. **Social design** conceives projects through innovative services, bringing new solutions for new needs.

4 DESIGN FOR SOCIAL CHANGE

... WHY DESIGN ?

According to Manzini (2014) design for social innovation is rather **a new way of looking at the world** than a new design discipline requiring specific set of skills and methods. Nevertheless, it will involve that a specific attention has to be paid to sustainability, ethic and anthropology.

It is now admitted that design could play a key role in public policies. However very few links are found between **design and risk prevention**, especially in the field of

natural hazards.

As a designer, we challenge to integrate a **project grounded research** to cope with a specific risk : flash flood in the southern french territories of Gard and Vaucluse. Seeing the limits of technical tools and measures used in flood prevention, we make the hypothesis that **design for social innovation** could be an innovative way to prevent damages in vulnerable areas. The objectives aim to give the citizens the capacity to tackle flooding, dealing with risk on a day-to-day basis, focusing on social innovation.

5 PARADIGM SHIFT

«In case of emergency, don't think, act !» (*extract of an interview*). The inhabitants should understand and translate environment's signals to have the proper behaviour in case of warning. So it depends on his interpretation of the risk. As Douglas & Wildavsky (1992) noticed it, risk is a matter of culture, depending on the context where it happens : risk is a social construct.

Hence, we focus our attention on

social innovation's potential rather than on technical or institutional concepts. We choose to study the «blind spot» of public policies : rural areas, because they may be an interesting laboratory of social innovation, more in a «bottom-up» perspective than a «top-down» response. We also consider flood as a complex process where water could be seen more as a resource than a threat.



• Douglas, M., & Wildavsky, A. B. (1982). *Risk and Culture: An essay on the selection of technical and environmental dangers*. Berkeley: University of California Press.

• Mapping social design research & practice (2014). *Social Design Rant 4 - Ezio Manzini*. Récupéré le 19 février 2015 du site An independent study for the Arts and Humanities Research Council : <http://mappingsocialdesign.org/>

• Morin, E. (2005). *Introduction à la pensée complexe*. Paris, France : Seuil.

5 AUTHOR

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